



**UNITED STATES DEPARTMENT OF COMMERCE
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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/480,836	06/07/96	SACHDEVA R	
GHATT, D			

F3M1/0828

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EXAMINER	
ART UNIT	PAPER NUMBER
2307	4

DATE MAILED: 08/28/96

Please find below a communication from the EXAMINER in charge of this application.

Commissioner of Patents.

Office Action Summary

Application No.

08/480,836

Applicant(s)

Rohit C. L. Sachdeva

Examiner

Dave Ghatt

Group Art Unit

3307



☒ Responsive to communication(s) filed on Jun 7, 1995

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-37 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-37 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☒ The drawing(s) filed on Jun 7, 1995 is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2.5

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 C.F.R. § 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the embodiment in which the implant is used as a fastening device for an onplant disk must be shown or the feature cancelled from the claim. No new matter should be entered.

Claim Rejections - 35 USC § 112

2. Claims 1-17 and 22-35 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 1 and 22, the recitation " an implant *adapted to be temporarily affixed to a bone...*", renders these claims as indefinite since this statement is only a functional statement of a desired capability and recites no definite structure which will provide the desired capability, thereby failing to specifically point out and distinctly claim the subject matter.

In claims 8 and 29, the recitation "a peripheral flange which may be grasped during attachment of an orthodontic appliance to said implant, so as to prevent rotation of said

implant" is functional and does not provide any definite structure of the flange.

In claims 9 and 30, the language is also functional, for example, the recitation of "a surface projection adapted to form a mechanical interlock with the bone" once again does not provide any definite structure of the interlock.

This is not an all inclusive list of the functional language existing in the body of these claims, therefore it is in the applicant's best interest to carefully re-examine the claims in order to correct all such occurrences.

With respect to claim 36 line 11, the phrase "substantially immediately" renders this claim indefinite. This phrase is not defined by the claim, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

The examiner has observed that the only difference between claim 1 and claim 22 is that claim 22 is formed by the inclusion of an additional surface, the palatal surface, into the Markush group of claim 1. It is the examiner's position that by adding the palatal surface in claim 22, to the previously recited Markush group of claim 1, the applicant is admitting that the palatal surface is functionally equivalent to all the surfaces mentioned in the Markush group recited in claim 1.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7,9,12,14,18-28,30,33, and 35 are rejected under 35 U.S.C. § 102(b) as being anticipated by Block et al. Block et al. teaches a temporary implant system (Figure 1 elements 21 and 22) for use as an anchor, affixed to a bone in the palatal surface of the maxillary jawbone. The implant taught by Block et al. clearly illustrates a securing section, element 22 to which an orthodontic appliance 24, illustrated in Figure 8, is screwed onto as outlined in column 3 lines 62-63, thereby forming a releasable attachment.

With respect to the implant that includes an integrally formed orthodontic appliance, Block et al. shows in Figure 8 a relation between the appliance and the implant that is as integrally formed as the applicant's invention.

With respect to claims 9 and 30, Figure 1 of Block et al. illustrates clearly outer body surface 30 which forms a mechanical lock with the palatal bone.

With respect to claims 12 and 33, the implant taught by Block et al. is made of titanium alloys as indicated in column 3 line 37.

With respect to claims 14 and 35, **insofar as structure is recited**, the implant taught by Block et al., in column 3 lines 33-35, does have a length between 2mm and 5mm and a diameter of 1mm.

With respect to claims 1-7,9,12,14 and 18-21, note the previous statement concerning applicant's admission as to the Markush group.

5. Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by Lodde et al. Insofar as structure is recited Lodde et al. teaches all the limitations of claim 1. Note especially, but not exclusively Figures 4G,5,8,10, and 11 of Lodde et al.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject

matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

7. Claims 14-17,21,35,36 and 37 rejected under 35 U.S.C. § 103 as being unpatentable over Block et al. Block et al. teaches an implant as specified by the applicant.

With respect to the size and angle limitations recited in claims 14-17,21 and 35, there is nothing unobvious in these measurements since they are simply obtainable by routine experimental procedures. Furthermore they do not appear to be critical because they are not recited in each and every claim.

With respect to claims 36 and 37 Block et al. teaches all the limitations outlined except the implant system does not have a hole that extends all the way through the onplant (element 21). Although the onplant does not have a hole that extends all the way through, Block et al. in Figure 2 clearly illustrates a threaded receiver that extends through the greater portion of the onplant 21. Figures 2 of Block et al. also illustrates the threaded member 33, that in Figure 8 is screwed into the receiver which is the obvious equivalent of the implant extending through the onplant hole as taught by the applicant.

8. Claims 10,11,13,31,32,34 are rejected under 35 U.S.C. § 103 as being unpatentable over Block et al. in view of Fukuda. Block

et al. teaches a temporary implant for use as an anchor, affixed to a bone in the palatal surface of the maxillary jawbone. Fukuda teaches a dental implant embedded into a jawbone, wherein the implant is made from ceramic materials such as zirconium oxide as described in column 6 lines 5-9. The implant also utilizes a shape memory alloy as outlined in column 4 line 46.

With respect to claims 10,11,31 and 32, it would have been obvious to one of ordinary skill in the art to incorporate the shape memory alloy taught by Fukuda into the implant system of Block et al. in order to improve the way in which the implant is secured and also to properly distribute stresses in the bone. Furthermore the use of shape memory alloys as a means of securing dental implants is conventional.

With respect to claims 13 and 34, it would have obvious to one of ordinary skill in the art to use the ceramic, zirconium oxide, taught by Fukuda in the implant taught by Block et al. as a means of varying the strength of the implant. Once again, there is nothing unobvious in this ceramic since it is conventional to use this material for dental implants.

9. Claims 2-7,9,12,and 14-21 are rejected under 35 U.S.C. § 103 as being unpatentable over Lodde et al. in view of Block et al. Lodde et al. teaches a temporary implant that is affixed to buccal and lingual and labial surfaces of the jawbone as illustrated in Figure 11. Block et al. teaches a temporary implant that has a securing section for releasably attaching an

orthodontic appliance. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use the implant as taught by Lodde et al. as a means of anchoring orthodontic appliances as taught by Block et al. as an alternative way of fastening the implant to the jawbone. All other claim limitations are met as previously outlined in section 4 of this office action.

10. Claims 10,11,and 13 are rejected under 35 U.S.C. § 103 as being unpatentable over Lodde et al. in view of Block et al. as applied to claims 2-6,9,12, and 14-21 above, and further in view of Fukuda. Lodde et al. and Block et al. teach dental implants as outlined above. Fukuda teaches a dental implant embedded into a jawbone, wherein the implant is made from ceramic materials such as zirconium oxide and also utilizes shape memory alloys in its structure. To one of ordinary skill in the art, it would have been obvious to incorporate the shape memory alloy, as well as ceramics such as Zirconium oxide as taught by Fukuda in order to vary the strength of the implant and also to improve the way it is secured to the jawbone.

Allowable Subject Matter

11. Claims 8 and 29 would be allowable if rewritten in independent form to overcome the rejection under 35 U.S.C. 112 and to include all of the limitations of the base claim and any intervening claims.

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12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant's full attention is invited to the patent of Fukuyo in its entirety.

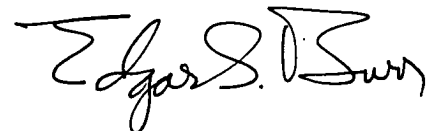
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Ghatt whose telephone number is (703) 308-3698. The examiner can normally be reached on Mon - Fri from 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Burr, can be reached on (703) 308-0979. The fax number for this Group is (703) 305-3590.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2789.



D.G.
August 22, 1996



EDGAR S. BURR
S.P.E.
GROUP ART UNIT 337